

2021 Best Research Poster Award

Advancing suicide prevention intervention research through cost-effectiveness analysis

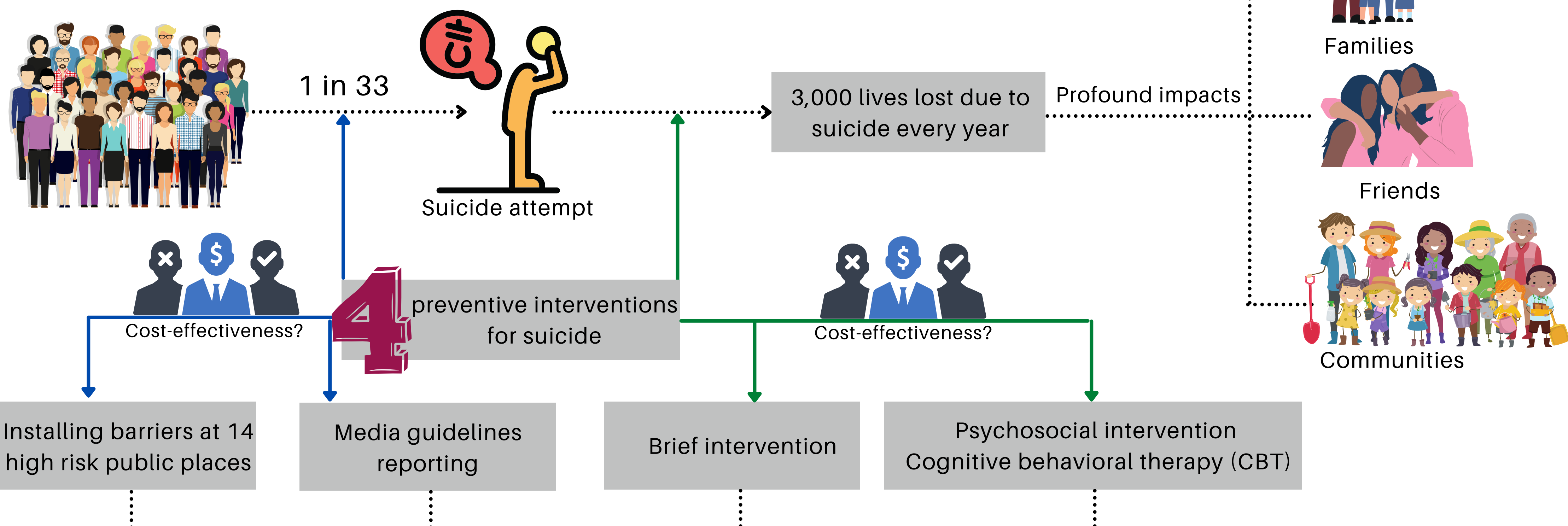
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INTRODUCTION



METHODS

- Data on the effectiveness of four interventions to reduce suicides were obtained from available literature.
- Costs saved from averted suicides were estimated using the value of statistical life.
- The cost-effectiveness model adopted a return on investment (ROI) framework comparing the cost-savings produced by each intervention relative to the intervention costs. A secondary analysis was conducted using the incremental cost-effectiveness ratio (ICER), comprising the difference in costs between the intervention and no intervention comparator, divided by the difference in reduction of suicide cases.
- Uncertainty analyses were conducted alongside the cost-effectiveness model to propagate parameter uncertainty (i.e., sampling error) from the input parameters to the final model outputs.
- Sensitivity analyses were also conducted to factor different scenarios including changing the monetary values associated with averting lost life years as well as changing intervention costs.

ROI ratio
2.9 (95%CI 0.9 to 4.0)

ROI ratio
91 (95%CI 35 to 169)

ROI ratio
6.5 (95%CI -35 to 59)

ROI ratio
2.4 (95%CI -8.5 to 15.1)

RESULTS

Secondary analysis: Under cost-effectiveness analysis, all four interventions were cost saving compared to no intervention.

Sensitivity analysis indicated that monetary value associated with suicide averted is the most important parameter being able to change the cost-effectiveness results of these interventions.

DISCUSSIONS & CONCLUSIONS

- All four interventions: building safety barriers at suicide hotspots, media reporting guidelines, CBT or telephone outreach- based intervention are less costly and more effective at reducing suicides than no intervention.
- This study strengthens the case for investment for suicide prevention and underscores the need to establish the cost-effectiveness of suicide prevention interventions.
- The reporting of results in multiple formats (cost effectiveness analysis and ROI) in this study is an innovative addition to the priority-setting literature. This will provide important information to decision-makers to help make more accurate choices in funding allocations and more importantly, contribute to more efficient health care service delivery.

ACKNOWLEDGEMENT

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